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Original Article

The Impact of Culture on Parenting and Psychopathology in Children: A Comparative Study Between Iran and Germany

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Abstract

Background: Previous research has consistently shown that parenting behavior and children's psychopathology such as internalizing and externalizing problems are closely interrelated. However, little is known about the impact of culture in this field. **Objectives:** The aim of this study was to investigate parenting behaviors, childhood psychopathology, and their interrelation in

Iran, representing a rather collective culture, and in Germany, representing an individualistic culture.

Materials and Methods: In this comparative study, participants were 221 children from Iran and Germany, who voluntarily agreed to participate. The sample was collected between 2010 and 2011. Levels of children psychopathology were assessed, using the child depression inventory (CDI), and youth self-report (YSR) questionnaire. Parents completed children behavior check list (CBCL), and parenting scale (PS). Repeated measures ANOVAs, independent sample t-test, and Spearman correlations were used.

Results: Iranian parents reported a more frequent use of parenting style of laxness when compared to German parents (P < 0.001). Furthermore, both children and parents in Iran reported more symptoms of internalizing and externalizing problems than the German sample (P < 0.001). Correlation analysis revealed a stronger relationship between over-reactivity with internalizing and externalizing symptoms in the Iranian group, while in the German sample, over-reactivity was related only to externalizing symptoms (P < 0.001).

Conclusions: The study suggests that dysfunctional parenting such as over-reactivity is related to children's psychopathology across different cultures. Nonetheless, our research also provides evidence that specific parenting practices and the reported levels of childhood psychopathology differ between collective and individualistic cultures, and that culture seems to be an important factor in this field.

Keywords: Children, Culture, Depression, Dysfunctional Parenting Discipline, Externalizing Problems, Internalizing Problems

1. Background

Mental health problems such as internalizing and externalizing behavior problems are very common in children and adolescents (1). Internalizing problems include symptoms such as anxiety, depression, social withdrawal or somatic complaints. In contrast, externalizing behaviors refer to as social problems, attention problems, rulebreaking behavior, and aggressive behavior. If internalizing and externalizing symptoms develop early in life and persist over time, they can have a strong negative impact on the development of the affected children and the family environment (2). Despite their high relevance, internalizing and externalizing behavior problems often remain untreated in this age group (3).

1.1. Parenting Factors and Children's Psychopathology

Research by Baumrind (4) suggested that parenting styles can be classified on the dimensions of warmth /responsiveness and demandingness / control effect. In a later study by Arnold et al. (5), three dysfunctional disciplines clusters (over-reactivity, laxness, and verbosity) were discussed. In detail, over-reactivity can be understood as responding in an emotionally overcharged manner with threats and physical punishment; laxness as a failure to respond consistently to misbehavior; and verbosity as a lengthy discussion such as lecturing and lengthy verbal reprimand such as nagging. Research by Baumrind (4) and Arnold et al. (5) revealed that authoritarian or overreactive parents are often harsh, exert high levels of control, and are lacking in warmth. Another research also indicated that over-reactivity in mothers and fathers' behavior was associated with externalizing mental disorders in preschool children and children up to 9 years of age (5-9). Moreover, 5 to 11 year- old children with authoritarian parents were more likely to show behavioral problems such as aggression (10). There is also some evidence that laxness and permissive discipline lead to an imbalance between control and warmth in the family climate, which may be

Copyright © 2016, Mazandaran University of Medical Sciences. This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/) which permits copy and redistribute the material just in noncommercial usages, provided the original work is properly cited. linked to children's delinquency, oppositional disorders, conduct disorders, aggression, and externalizing and internalizing symptoms (11-15).

1.2. Cultural Differences in Parenting and Childhood Psychopathology

In the field of parental behavior and childhood psychopathology, cultural differences in social norms and individual beliefs are important factors that need to be considered (16-20). For example, differences in values and socialization between collectivistic culture (such as Iran) and individualistic cultures (such as Germany) exist in terms of obedience, conformity and emotional expression, which can affect both parents and children's behavior. In addition, previous research revealed that there are cultural influences on psychopathology such as internalizing and externalizing behavior problems. A study by Rescorla et al. (21), compared parental reports of children's behavior problems and showed that parents from collective cultures report more internalizing problems than externalizing problems. Cultural differences on psychopathology are dependent on norms, values, social contexts and rules, which define if emotions can be expressed or inhibited. In particular, the latter aspect is discussed to be strongly related to the report of behavioral and emotional problems, which also comprises parent-child agreement on the report of psychopathology (22-24).

1.3. The Current Study

Previous researchers suggest that parenting and childhood psychopathology are closely related (22-24). However, little is known about the interrelation of parenting and children's mental health, and the role of cultural background in this field is rather unexplored. Therefore, the aim of this study was to investigate parenting styles and symptoms of childhood psychopathology (internalizing and externalizing) in Iran and Germany, either representing a collective or an individualistic socialization context.

2. Objectives

Our hypotheses were as follows:

1. Iranian and German parents differ in terms of parenting style (25).

2. Internalizing and externalizing behavior problems are more common in Iran when compared to Germany (26).

3. Negative parenting disciplines (over-reactivity, laxness, verbosity) are related to symptoms of internalizing and externalizing behavior problems in both countries (6-8, 12, 27).

3. Materials and Methods

3.1. Sample

This comparative study was carried out among Iranian and German children as well as their parents. Participation was voluntary. Inclusion criteria were willingness to participate in the study, age range of 11-14 years, and lack of an acute psychiatric disorder. For ethical considerations, participants were assured that their personal information was handled confidentiality. The sample included two groups of healthy and normally developing children, one from Iran (n = 103) and the other from Germany (n = 118). The Iranian sample was collected from September to November 2010, and the German sample from December 2010 to May 2011. The age of all participants ranged from 11 to 14 years, and all were native German and Iranian. Statistical power analysis, using G*power software, showed satisfactory statistical power for medium effects.

First, the aim and the procedure of the study were explained to the school directors of the corresponding schools. If schools agreed to participate, children (YSR, CDI) and parents (PS, CBCL) received the questionnaires and the informed consent form by mail. Assessment of the children's data was conducted during a regular school day in a group setting for each participating class. A postgraduate psychologist first explained the questionnaires to the participating children and was available to offer further assistance if needed.

3.2. Instruments

3.2.1. Assessment of Behavior Problem

3.2.1.1. Youth Self-Report (YSR)

The Youth self-Report questionnaire developed by Achenbach (27) was designed to assess problem behavior in 11-18 year-old children during the preceding six months. Minaei (28) translated the German version translated by Dopfner et al. (29) into Farsi. The questionnaire showed good reliability to be used in Iran as well. The response format for the items is as follows: 0: not true; 1: somewhat true; and 2: very true. It includes various DSM-oriented syndromes scales that can be grouped into internalizing or externalizing scales. The internalizing scale includes social withdrawal, somatic complaints, and anxious-depressive symptoms, while the externalizing scale consist of delinquent behavior and aggressive behavior scales. Cronbach's alpha for the YSR in our sample showed excellent reliability (α = 0.929). The Cronbach's alpha in Iranian children sample was α = 0.950, and α = 0.930 for German children.

3.3. Children Behavior Checklist (CBCL)

Achenbach (32) developed the Child behavior checklist questionnaire. Minaei (34) translated the German version translated by Dopfner et al. (29) into Farsi. In terms of the psychometric properties of the Persian version of the CBCL, internal consistency was good (alpha = .88), and test-retest reliability over a 5-8 week period was satisfactory.

The child behavior checklist is the parent version of the YSR, and assesses emotional and behavioral problems in children 4 - 18 years of age. Like the YSR, psychopathological symptoms in the past six months are assessed, and it includes 113 items, which are scored as 0 (not true), 1 (somewhat true) and 2 (very true). The instrument measures eight syndromes, which can be grouped into internalizing and externalizing problems. The internalizing scale combines three syndromes of social withdrawal, somatic complaints, and anxious-depressive symptoms, while the externalizing scale combines delinquent behavior and aggressive behavior scales. The CBCL has good psychometric properties, and it has been extensively validated by Achenbach (27). The Cronbach's alpha for the overall CBCL in our sample was excellent (α = 0.971). The Cronbach's alpha in Iranian children sample was α = .972, and α = .928 for German children sample.

3.4. Children Depression Inventory (CDI)

Kovacs (30, 31) developed children Depression Inventory. The children depression inventory (CDI; Kovacs, 30,31, was tranlated into German by Stiensmeier-Pelster et al. (32) and into Farsi by Dehshiri et al. (33).

The child depression inventory is a self-report questionnaire, which assesses the cognitive, affective, and behavioral symptoms of depression in children. Total scores range from 0 to 52, with a recommended cut-off score at 19. Internal consistency and test-retest reliability estimates are acceptable, and the CDI shows good discriminant and convergent validity, Carey, Faulstich, Gresham, Ruggiero, & Enyart, 1987 (34). The Cronbach's alpha for the overall CDI in our sample was good (α = 0.805). The Cronbach's alpha in Iranian children sample was α = 0.806, and it was α = 0.820 for German children.

3.5. Parenting Discipline and Children Outcomes (PS)

Parenting Scale (5) is a 30-item self-report instrument originally developed to assess the discipline practices of parents of preschool children. Naumann et al. (35) translated the German version and added five questions to the original questionnaire; the questionnaire had good reliability. Tehrani-Doost, Shahrivar, Gharaie, and Alaghband-Rad translated the Farsi version of the parenting scale in 2009 (36). The questionnaire showed good reliability. The original scale contains 30 items on a seven-point Likert scale, ranging from a high probability to use an effective discipline strategy to a high probability of making a discipline mistake. The questionnaire measures three dysfunctional disciplines by parents: (a) PS-over-reactivity (e.g., "I get so frustrated or angry that my child could see I'm upset."); (b) PS- Laxness (e.g., "I let my child do whatever he/she wants."); (c) PS-verbosity (e.g., "I give my child a long speech"). The questionnaire has adequate test-retest reliability (r = 0.651) and has been validated against behavioral observations of parenting. The Cronbach's alpha for the overall PS in our sample was good ($\alpha = 0.766$) (6).

3.6. Statistical Analyses

Scores of the parenting scale were analyzed, using a 2 Group (Iran, Germany) X 3 Scale (over-reactivity, laxness, verbosity) analysis of variance (ANOVA), with repeated measures on the scale. Children's symptoms of psychopathology from the parent (CBCL) and the child (YSR) perspective were submitted to a 2 Group (Iran, Germany) X 2 Scale (internalizing, externalizing) repeated measures ANOVAS. In case of significant ANOVA effects, post-hoc independent sample t-tests were used to locate the effect. To evaluate the symptoms of depression (CDI) in children of both groups, an independent sample t-test was used. Furthermore, Spearman correlation was used to detect the relationship between parenting styles and children's measures of psychopathology. Significance level was set at alpha = 0.05.

4. Results

4.1. Parenting Styles

Scores of the parenting scale were submitted to a 2 Group (Iran, Germany) X 3 Scale (over-reactivity, laxness, verbosity) analysis of variance (ANOVA), with repeated measures on the scale. There were main effects of the scale, F(2, 380) = 148.8 P < 0.001, $\eta^2 = .439$, and country F(1, 190) = 28.5, P < 0.001, $\eta^2 = .131$, as well as a significant interaction of scale and country F(2, 189) = 29.9, P < 0.001, $\eta^2 = 0.240$.

The post-hoc independent-samples t-tests were conducted to compare negative parenting disciplines between the two countries. A significant difference was found in the scores of laxness in Iranian children and German children t (190) = 10.4, P < 0.001, d = 1.51. Iranian parents reported more laxness than German parents. Groups did not differ on the two other scales of over-reactivity and verbosity PS > 0.311. The mean and standard deviations are reported in Table 1.

Variables	Iran (n = 103)	Germany (n = 118)	Statistic
Sex	1.53 (0.50)	1.34 (0.47)	
Age	12.3 (0.80)	12.8 (0.84)	
PS			
Laxness	39.2 (7.83)	22.4 (6.48)	t (190)=10.40, P< 0.001
Over-reactivity	33.2 (9.10)	41.4 (10.54)	t (190)=1.08, P> 0.278
Verbosity	30.1 (6.47)	20.9 (4.36)	t (190) = 0.760, P> 0.447
CBCL			
Internalizing	10.5(9.01)	4.72 (5.85)	t (198) = 5.28, P < 0.001
Externalizing	8.82 (9.06)	3.95 (4.47)	t (213)=3.97, P< 0.001
YSR			
Internalizing	12.56 (9.53)	9.00 (7.27)	t (218) = 3.84, P < 0.001
Externalizing	14.73 (8.16)	9.38 (6.42)	t (213)=3.97, P< 0.001
CDI	12.81 (6.91)	10.1 (6.08)	t(214) = 2.99, P = 0.003

Table 1. Descriptive Research Variables^a

Abbreviations: Ps, parenting scale; CBCL, child behavior checklist; YSR, youth self-report; CDI, children depression inventory.

^aValues are expressed as mean (SD).

4.2. Internalizing and Externalizing Behavior Problems, Parents' Perspective

Internalizing and externalizing symptoms reported by parents in the CBCL were analyzed, using a 2 Group (: Iran, Germany) X 2 Scale: (internalizing and externalizing symptoms), ANOVA with repeated measures on the Scale. The results revealed main effects of the scale F (1, 197) = 26.9, P < 0.001, η^2 = .120, and Country F (1, 197) = 29.5, P < 0.001 η^2 = .131, but no significant interaction was found between Group and Scale P > 0.115. Independent-samples t-tests were conducted to compare the parents' reports of internalizing and externalizing symptoms about their children. The results revealed that parents in Iran reported more symptoms of internalizing, t (198) = 5.286, P < 0.001, d = 0.75, and externalizing problems, t (197) = 4.82, P< 0.001, d = 0.69 than German parents.

4.3. Children's Perspective

Internalizing and externalizing symptoms reported by children in the YSR were analyzed, using a 2 Group (Iran, Germany) X 2 Scale (Internalizing and externalizing symptoms) ANOVA, with repeated measures on scale. The results revealed main effects of the Scale, F (1, 213) = 6.64, P = .011, η^2 = .011, and Group, F (1, 213) = 17.91, P < 0.001, η^2 = .078, and interaction between Group and Scale, F (2, 189) = 29.911, P < 0.001, η^2 = .240.

Independent-samples t-tests were conducted to compare internalizing and externalizing symptoms of children in both groups. Children in Iran reported more symptoms of internalizing, t (218) = 3.84, P < 0.001, d = 0.51, and externalizing problems, t (213) = 3.97, P< 0.001, d = 0.54 than German children.

To further compare groups on depressive symptoms, CDI scores were submitted to an independent sample t-test, revealing higher depression scores in Iranian children when compared to the German sample, t (214) = 2.99, P = 0.003, d = 0.40.

4.4. Negative Parenting Disciplines

There were significant correlations between overreactive parenting and children's symptoms of psychopathology in both samples. Interestingly, on a descriptive level, there was a stronger correlation between over-reactive parenting and children's' internalizing, externalizing and depressive symptoms in Iranian children when compared to German children. There were no significant relations between the two other parenting styles and children's psychopathology (Tables 2 and 3).

With respect to the agreement between children and parents' perspective on psychopathological symptoms, there were positive correlations between internalizing and externalizing behavioral symptoms reported by children and their parents in both samples. However, correlations were stronger in the Iranian sample, indicating a higher parent-child agreement in Iran (Tables 2 and 3).

Iran	PS-Verbosity	PS-Overreactivity	PS-Laxness	YSR-Externalizing	YSR-Internalizing	CBCL-Externalizing	CBCL-Internalizing	CDI	Age
PS-verbosity		0.233 ^a	0.200	-0.107	-0.121	-0.062	-0.102	-0.164	-0.128
PS-over-reactivity			0.169	0.240 ^a	0.204 ^a	0.207 ^a	0.172	0.264 ^b	-0.15
25-laxness				-0.035	-0.048	-0.044	-0.097	-0.111	0.00
YSR-externalizing					0.681 ^b	0.540 ^b	0.386 ^b	0.389 ^b	-0.00
YSR-internalizing					-	0.622 ^b	0.726 ^b	0.527 ^b	-0.01
CBCL-externalizing							0.556 ^b	0.399 ^b	-0.04
CBCL-internalizing								-0.419 ^b	-0.02
CDI									0.04
Age									

Abbreviati

^a P< 0.05. ^b P< 0.01.

Table 3. The Correlations Among the Study Variables in the German Sample

Table 2. The Correlations Among the Study Variables in the Iranian Sample

Germany	PS-Verbosity	PS-Overreactivity	PS Laxness	YSR-Externalizing	YSR- Internalizing	CBCL-Externalizing	CBCL-Internalizing	CDI	Age
Ps-verbosity		0.166	0.265 ^a	0.018	0.127	0.107	0.197	0.196	0.186
Ps-overreactivity			0.278 ^a	0.180	0.213 ^b	0.239 ^b	0.236 ^b	0.244 ^b	0.001
Ps-laxness				0.050	0.123	-0.179	-0.036	-0.104	0.124
YSR-externalizing					0.424 ^a	0.384 ^a	0.294 ^a	0.494 ^a	0.161
YSR-internalizing						0.287 ^a	0.650 ^a	0.494 ^a	0.179
CBCL-externalizing							0.558 ^a	0.399 ^a	-0.067
CBCL-internalizing								-0.387 ^a	-0.038
CDI									0.091
Age									

Abbreviations: Ps, parenting scale; CBCL, child behavior checklist; YSR, youth self-report; CDI, children depression inventory

^a P< 0.01. ^b P< 0.05.

5. Discussion

This study investigated parenting behavior, childhood psychopathology and their interrelation in an Iranian and a German Sample, representing either a collective or individualistic socialization context. The results were as follows: Iranian parents reported a higher frequent use of the parenting practice of laxness when compared to German parents. Furthermore, there were higher levels of psychopathological problems such as internalizing and externalizing symptoms in Iran according to both parents and children's reports. In addition, there was a higher parentchild agreement in the Iranian group when compared to the German group. Over-reactivity, as a dysfunctional parenting practice in both countries, was related to additional psychopathological symptoms in children. These findings are in line with previous studies, suggesting a relation between parenting style and children's behavioral problems (5-9, 12-15, 37, 38).

5.1. Cultural Differences in Parenting and Childhood Psychopathology

In this study, Iranian parents reported a more frequent use of laxness as a parenting strategy when compared to German parents. Interestingly, no differences were found between the two groups in terms of over-reactivity and verbosity. Together with the result that Iranian children suffered from more psychopathological symptoms, our results are in line with previous studies that report that low parental control (e.g., laxness) is associated with poor behavior outcomes in children (5, 11, 39-41). They are further in line with other research of Hulei, Zevenbergen, and Jacobs (42), who found that parents from collective cultures use more lax parenting when compared to western (individualistic) countries.

Comparing the self-reports symptoms of behavior problems of German and Iranian children and their parents, it was found that the Iranian group reported more internalizing and externalizing behavioral symptoms. While this may suggest that children in Iran suffer from more severe psychopathological problems, another reason for these group differences could be that families from collective and individualistic cultures report the same level of psychopathological problems differently. Evaluation studies in seven countries (Australia, China, Israel, Jamaica, The Netherlands, Turkey and the United States) on behavioral problems of the youth ages 11 - 18 years revealed that cultural context had an effect on the report of the youth's behavioral problems. For example, Chinese and Jamaican youths were more likely to report internalizing symptoms while Israeli and Dutch had the lowest reported internalizing problems compared to other countries (43). Moreover, research by Begovac et al. (44) displayed that adolescents and their parents in Croatia reported more symptoms of behavior problem by CBCL and YSR scales than the original American sample, and described this differences by attention on sociocultural differences. Examples of sociocultural factors include language, law, religion, values, attitudes, family, peers, and material culture (20, 45, 46).

The results of various researches have shown that parenting is an important factor when exploring the causes of mental health problems in children (5, 39, 47, 48). In line with this idea, the results of this study displayed that parents' over-reactive discipline correlated with children's symptoms of internalizing and externalizing behavior problems in both countries. This is in line with previous studies that have shown that over-reactivity, as a parental behavior, is often directly related to more internalizing and externalizing symptoms in children. Other research also has linked parents with high control and low level of emotional warmth to children's symptoms of internalizing problems such as depression and anxiety (49-51). Research in Iran by Shahmohammadi (52) revealed that children of parents who are less warm and more rejecting, exhibit internalizing and conduct problems probably because children of over-reactive parents frequently experience being rejected by their caregivers (4).

5.2. Limitations and Future Studies

The following limitations may apply to this study: First, the study collected data from non-clinical community samples, and the prevalence of internalizing and externalizing behavioral problems in both countries can not be referred to individuals who suffered from any clinical problem. Thus, future studies may want to investigate clinical samples to clarify the clinical relevance of our study results. Second, data were collected, using self-report questionnaires, and therefore, could be biased by inaccurate self-perceptions and social desirability. Moreover, parenting disciplines were reported by parents, as well as sometimes just the fathers or just mothers. Thus, future studies should comprise both observational and self-report methods. Finally, only two cities in Germany and Iran were selected for data collection; and thus, it may be conceivable that our results do not apply to the population of both countries. Hence, future studies may wish to use stratified cluster sampling in a broader context to replicate our study results.

5.3. Conclusion and Future Perspectives

Parents are like a mirror to their children to receive feedback about pleasing and displeasing behavior, because children have broad relationships with parents and learn from them how to act in different situations. Findings from this study revealed that negative parenting discipline may be associated with low or moderate children's behavioral problems for both samples and that cultural context may influence both parental behavior and reports of childhood psychopathology.

Future research in this area would benefit a particularly exciting area of future research that might involve examining the role of parental beliefs about behavior problems in children. It seems important to replicate the results of this study in a larger sample before any more definitive conclusions can be reached.

Footnotes

Authors' Contribution: Niloufar Thamouresi, Julian Schmitz, Caroline Bender and Brunna Tuschen-Caffier conceived and designed the evaluation and interpreted the clinical data. Niloufar Thamouresi collected the clinical data, performed the statistical analysis and drafted the manuscript. Niloufar Thamouresi and Julian Schmitz revised it critically for important intellectual content. All authors read and approve the final manuscript.

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